

CLAIMS

1. A method of converting an electronic wallet, comprising steps of:
providing an account, the account a first account type providing a first set of
5 services, the first set of services requiring a first level of authentication;
presenting an accountholder a one-time challenge/response mechanism; and
if the accountholder clears the challenge, converting the account to a second
account type for all time.
- 10 2. The method of Claim 1, wherein the challenge/response mechanism requires
an accountholder to provide information known only to the accountholder; and
wherein the second type provides the first set of services plus further services
associated therewith, the further services requiring at least one further level of
authentication.
- 15 3. The method of Claim 2, wherein the step of providing the wallet account
comprises either of the steps of:
creating the account when making an initial purchase; and
creating a record in a subscriber database.
- 20 4. The method of Claim 3, wherein subscribers include subscribers to any of:
an online service; and
an ISP (Internet service provider).
- 25 5. The method of Claim 2, wherein the step of presenting a challenge/response
mechanism comprises steps of:

requesting a service from within the account of the first type that is only available from within an account of the second type; and

one time only, prompting the accountholder to provide the information known only to the accountholder.

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6. The method of Claim 2, wherein the account comprises an electronic wallet, the first type comprising a thin wallet wherein the first set of services comprises at least one low-risk task requiring a low security level.

10 7. The method of Claim 6, wherein the at least one low-risk task comprises any of:

making purchases not exceeding a predetermined purchase amount;
making transactions using default account information; and
making purchases at sites requiring only the first level of authentication.

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8. The method of Claim 6, wherein the second type comprises a full wallet and the further rights comprise additional tasks requiring greater security than the low level of security.

20 9. The method of Claim 8, wherein the additional tasks comprise any of:
editing the default account information;
editing account preferences;
making purchases that exceed a predetermined purchase amount; and
making purchases at sites that require the at least one level of further
25 authentication.

10. The method of Claim 2, further comprising a step of authenticating at the first level to gain access to the first account.

11. The method of Claim 10, wherein authenticating at the first level comprises
5 providing a user ID and a first-level password.

12. The method of Claim 12, wherein the information known only to the account holder comprises at least a portion of a credit card number stored in the first account.

10 13. The method of Claim 12, further comprising steps of:
if the accountholder doesn't clear the challenge, allowing a predetermined number of attempts to enter the information known only to the account holder; and
if the accountholder fails the predetermined number of attempts, allowing the accountholder to provide a new credit card number; and
15 presenting a challenge based on the new credit card number.

14. The method of Claim 2, further comprising steps of:
configuring the challenge by an account provider, wherein configuring the challenge includes:
20 specifying information requested by the challenge; and
specifying a permissible number of response attempts.

15. The method of Claim 2, wherein the step of converting the account comprises steps of:
25 creating a record in a wallet account database;
providing notice of a privacy policy; and

consenting to the privacy policy by the account holder.

16. The method of Claim 15, wherein the step of converting the account further comprises a step of:

5 creating a second-level challenge.

17. The method of Claim 16, wherein the step of creating a second-level challenge comprises any of the steps of:

 setting a second-level password; and
10 configuring a security question by the accountholder.

18. The method of Claim 17, wherein the at least one further level of authentication requires any of the steps of:

 providing the second-level password; and
15 clearing the security question.

19. The method of Claim 18, further comprising a step of:

 providing a user interface accessible only to holders of accounts of the second type to edit account information and preferences.

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20. The method of Claim 19, wherein the account information comprises any of:

 first name;

 middle initial;

 last name;

25 credit card type;

 credit card number;

credit card expiration date;

billing address;

city;

state;

5 postal code;

country;

daytime phone; and

evening phone.

10 21. The method of Claim 20, wherein first account type comprises a thin wallet, the thin wallet comprising a record in a subscriber database, and wherein the second account type comprises a full wallet, the full wallet comprising the record in the wallet database, wherein full wallet is initially populated with information from the thin wallet.

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22. The method of Claim 21, further comprising a step of:

providing a wallet server, wherein the wallet server comprises a web server having a wallet application running thereon, the wallet server operative to pull account information from either the subscriber database or the wallet database.

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23. A computer program product comprising a tangible medium having computer readable code embodied thereon, the computer code including program code means for performing a method of converting an electronic wallet, the method comprising steps of:

25 providing an account, the account a first account type providing a first set of services, the first set of services requiring a first level of authentication;

presenting an accountholder a one-time challenge/response mechanism; and
if the accountholder clears the challenge, converting the account to a second
account type for all time.

5 24. The method of Claim 23, wherein the challenge/response mechanism
requires an accountholder to provide information known only to the accountholder;
and

wherein the second type provides the first set of services plus further services
associated therewith, the further services requiring at least one further level of
10 authentication.

25. The method of Claim 24, wherein the step of providing the wallet account
comprises either of the steps of:

creating the account when making an initial purchase; and
15 creating a record in a subscriber database.

26. The method of Claim 25, wherein subscribers include subscribers to any of:
an online service; and
an ISP (Internet service provider).

20 27. The method of Claim 24, wherein the step of presenting a challenge/response
mechanism comprises steps of:

requesting a service from within the account of the first type that is only
available from within an account of the second type; and
25 one time only, prompting the accountholder to provide the information known
only to the accountholder.

28. The method of Claim 24, wherein the account comprises an electronic wallet, the first type comprising a thin wallet wherein the first set of services comprises at least one low-risk task requiring a low security level.

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29. The method of Claim 28, wherein the at least one low-risk task comprises any of:

making purchases not exceeding a predetermined purchase amount;
making transactions using default account information; and
making purchases at sites requiring only the first level of authentication.

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30. The method of Claim 28, wherein the second type comprises a full wallet and the further rights comprise additional tasks requiring greater security than the low level of security.

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31. The method of Claim 30, wherein the additional tasks comprise any of:
editing the default account information;
editing account preferences;
making purchases that exceed a predetermined purchase amount; and
making purchases at sites that require the at least one level of further authentication.

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32. The method of Claim 24, further comprising a step of authenticating at the first level to gain access to the first account.

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33. The method of Claim 32, wherein authenticating at the first level comprises providing a user ID and a first-level password.

34. The method of Claim 24, wherein the information known only to the account holder comprises at least a portion of a credit card number stored in the first account.

35. The method of Claim 24, further comprising steps of:

if the accountholder doesn't clear the challenge, allowing a predetermined number of attempts to enter the information known only to the account holder; and

if the accountholder fails the predetermined number of attempts, allowing the accountholder to provide a new credit card number; and

presenting a challenge based on the new credit card number.

36. The method of Claim 24, further comprising steps of:

configuring the challenge by an account provider, wherein configuring the challenge includes:

specifying information requested by the challenge; and

specifying a permissible number of response attempts.

37. The method of Claim 24, wherein the step of converting the account comprises steps of:

creating a record in a wallet account database;

providing notice of a privacy policy; and

consenting to the privacy policy by the account holder.

38. The method of Claim 37, wherein the step of converting the account further comprises a step of:
creating a second-level challenge.
- 5 39. The method of Claim 38, wherein the step of creating a second-level challenge comprises any of the steps of:
setting a second-level password; and
configuring a security question by the accountholder.
- 10 40. The method of Claim 39, wherein the at least one further level of authentication required any of the steps of:
providing the second-level password; and
clearing the security question.
- 15 41. The method of Claim 40, further comprising a step of:
providing a user interface accessible only to holders of accounts of the second type to edit account information and preferences.
- 20 42. The method of Claim 41, wherein the account information comprises any of:
first name;
middle initial;
last name;
credit card type;
credit card number;
25 credit card expiration date;
billing address;

city;
state;
postal code;
country;
5 daytime phone; and
evening phone.

43. The method of Claim 42, wherein first account type comprises a thin wallet,
the thin wallet comprising a record in a subscriber database, and wherein the second
10 account type comprises a full wallet, the full wallet comprising the record in the wallet
database, wherein full wallet is initially populated with information from the thin
wallet.

44. The method of Claim 43, further comprising a step of:
15 providing a wallet server, wherein the wallet server comprises a web server
having a wallet application running thereon, the wallet server operative to pull
account information from either the subscriber database or the wallet database.

45. The method of Claim 2, wherein said at least one further level of
20 authentication comprises accessing said account from a client device previously
established as trusted.

46. The method of Claim 45, wherein establishing a client as trusted comprises
authentication with a second-level password.

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47. The method of Claim 45, further comprising a step of reestablishing a client as trusted if a trusted state is compromised.

48. The method of Claim 45, further comprising a step of providing a visual
5 indicator of a trusted state.

49. The method of Claim 45, further comprising a step of providing a security controls panel that permits accountholders to manage authentication for various online products and sites.

10 50. A system for converting an electronic wallet comprising:

a wallet server;

a wallet database;

a subscriber database;

15 wherein the wallet server is in communication with the wallet and the subscriber databases; and

a client in communication with the wallet server, wherein a wallet accountholder requests services from the wallet server;

wherein the server includes means for converting the electronic wallet.

20 51. The system of Claim 50, wherein the means for converting the electronic wallet comprises a computer program embodied on a tangible medium, the computer program including computer code means for:

providing an account, the account a first account type providing a first set of
25 services, the first set of services requiring a first level of authentication;

presenting the accountholder a one-time challenge/response mechanism;
and

if the accountholder clears the challenge, converting the account to a second
account type for all time.

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52. The system of Claim 51, wherein the challenge/response mechanism requires
an accountholder to provide information known only to the accountholder; and

wherein the second account type provides the first set of services plus further
services associated therewith, the further services requiring at least one further level

10 of authentication.

53. The system of Claim 52, wherein the code means for providing the wallet
account comprises code means for either of:

creating the account when making an initial purchase; and

15 creating a record in the subscriber database.

54. The system of Claim 53, wherein subscribers include subscribers to any of:
an online service; and

an ISP (Internet service provider).

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55. The system of Claim 52, wherein the code means for presenting a
challenge/response mechanism comprises code means for:

requesting a service from within the account of the first type that is only
available from within an account of the second type; and

25 one time only, prompting the accountholder to provide the information known
only to the accountholder.

56. The system of Claim 52, wherein the account comprises an electronic wallet, the first type comprising a thin wallet wherein the first set of services comprises at least one low-risk task requiring a low security level.

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57. The system of Claim 56, wherein the at least one low-risk task comprises any of:

- making purchases not exceeding a predetermined purchase amount;
- making transactions using default account information; and
- making purchases at sites requiring only the first level of authentication.

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58. The system of Claim 56, wherein the second type comprises a full wallet and the further rights comprise additional tasks requiring greater security than the low level of security.

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59. The system of Claim 58, wherein the additional tasks comprise any of:

- editing default account information;

- editing account preferences;

- making purchases that exceed a predetermined purchase amount; and

- making purchases at sites that require the at least one level of further authentication.

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60. The system of Claim 52, the program further comprising code means for authenticating at the first level to gain access to the first account.

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61. The system of Claim 60, wherein the code means for authenticating at the first level includes code means for providing a user ID and a first-level password.

62. The system of Claim 52, wherein the information known only to the account holder comprises at least a portion of a credit card number stored in the first account.

63. The system of Claim 52, the program further comprising code means for:
if the accountholder doesn't clear the challenge, allowing a predetermined number of attempts to enter the information known only to the account holder; and
if the accountholder fails the predetermined number of attempts, allowing the accountholder to provide a new credit card number; and
presenting a challenge based on the new credit card number.

64. The system of Claim 52, the program further comprising code means for:
configuring the challenge by an account provider, wherein configuring the challenge includes:
specifying information requested by the challenge; and
specifying a permissible number of response attempts.

65. The system of Claim 52, wherein the code means for converting the account comprises code means for:
creating a record in the wallet database;
providing notice of a privacy policy; and
consenting to the privacy policy by the account holder.

66. The system of Claim 65, wherein the code means for converting the account further comprises code means for:
creating a second-level challenge.
- 5 67. The system of Claim 66, wherein the code means for creating a second-level challenge comprises code means for any of:
setting a second-level password
configuring a security question by the accountholder.
- 10 68. The system of Claim 67, wherein the at least one further level of authentication requires any of the steps of:
providing the second-level password; and
clearing the security question.
- 15 69. The system of Claim 68, the program further comprising code means for:
providing a user interface accessible only to holders of accounts of the second type to edit account information and preferences.
- 20 70. The system of Claim 69, wherein the account information comprises any of:
first name;
middle initial;
last name;
credit card type;
credit card number;
25 credit card expiration date;
billing address;

city;
state;
postal code;
country;
5 daytime phone; and
evening phone.

71. The system of Claim 70, wherein the first account type comprises a thin wallet, the thin wallet comprising a record in the subscriber database, and wherein
10 the second account type comprises a full wallet, the full wallet comprising the record in the wallet database, wherein the full wallet is initially populated with information from the thin wallet.

72. The system of Claim 71, wherein the wallet server comprises a web server
15 having the wallet application running thereon, the wallet server operative to pull account information from either the subscriber database or the wallet database.

73. The system of Claim 50, further comprising a second server, said second server operative to relay data and requests between said wallet server and said
20 subscriber database.

74. The system of Claim 73, further comprising a router, the router operative to link at least a first and a second network, wherein the wallet server occupies the first network and wherein the second server and the subscriber database occupy the
25 second network.

75. The system of Claim 74, wherein the wallet database occupies said second network.

76. The system of Claim 52, wherein said at least one further level of authentication comprises accessing said account from a client device previously established as trusted.

77. The system of Claim 76, wherein establishing a client as trusted comprises authentication with a second-level password.

78. The system of Claim 76, said application further comprising code means for reestablishing a client as trusted if a trusted state is compromised.

79. The system of Claim 76, said application further comprising code means for providing a visual indicator of a trusted state.

80. The system of Claim 76, said application further comprising code means for providing a security controls panel that permits accountholders to manage authentication for various online products and sites.